

Document #1396 Feinstein, Dianne U.S. Senate

TO-US DEPARTMENT OF ENE Page 02

Received Mar-21-05 12:25pm From-

DIANNE FEINSTEIN  
CALIFORNIA

COMMITTEE ON APPROPRIATIONS  
COMMITTEE ON ENERGY AND NATURAL RESOURCES  
COMMITTEE ON THE JUDICIARY  
COMMITTEE ON RULES AND ADMINISTRATION  
SELECT COMMITTEE ON INTELLIGENCE

United States Senate  
WASHINGTON, DC 20510-0504  
<http://feinstein.senate.gov>

#1396, p1

March 7, 2005

The Honorable Samuel Bodman  
Secretary of Energy  
Department of Energy  
1000 Independence Avenue, SW  
Washington, DC 20585

Dear Secretary Bodman,

I am writing to urge the Department of Energy to adopt an off-site remediation plan for the uranium mill tailings pile at the site near Moab, Utah. The Moab site lies adjacent to the Colorado River, which serves as a water resource for the citizens of Utah, Nevada, Arizona, and California.

The Draft Environmental Impact Statement (EIS) the Department of Energy released last November identified the environmental impacts of two primary remediation alternatives: one that would cap the tailings pile on site and one that involves off-site disposal. The Department did not, however, identify a preferred alternative as part of the Draft EIS. I wish to bring to your attention several of the reasons why the on-site alternative will not provide a long-term solution to this problem.

In response to the Draft EIS, the Environmental Protection Agency (EPA) indicated that because the on-site remediation alternative does not involve use of a liner underneath the disposal pile, contaminants from the tailings pile, including uranium and ammonia, will continue to seep into the groundwater and into the river. The EPA also pointed out that the eventual deterioration of the salt-beds underlying the disposal site will result in subsidence in the area of the site, compromising the integrity of the proposed cap and leading to radon releases and water infiltration through the pile.

The location of the Moab site within the 100-year floodplain for the Colorado River presents an increased risk of reintroducing contaminants into the groundwater and surface waters should heavy flooding occur. A recently released study by the

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03/21/2005 14:30 FAX

Remediation of the Moab Uranium Mill Tailings, Grand and San Juan Counties, Utah  
Final Environmental Impact Statement

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TO: U.S. DEPARTMENT OF ENERGY Page 03

Received Mar-21-05 12:25pm From-

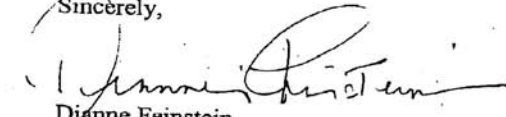
#1396, p2

U.S. Geological Survey indicated that part of the pile would be inundated by up to 25 feet of water during the flooding associated with 100-year to 500-year storms.

It is clear to me that the on-site alternative presents the possibility for significant adverse impacts on the Colorado River in the event of flooding or river migration, natural subsidence, or disposal cell failure. Because of the potential for prolonged environmental and public health risks associated with continued release of toxic contaminants into ground and surface waters, off-site disposal is the only option that offers a long-term solution.

I greatly appreciate your attention to this issue. It is my hope that the Department of Energy will move forward with a final remediation plan for the Moab site that includes off-site disposal of the uranium mill tailings and a comprehensive groundwater remediation strategy that provides long-term protection of the local citizens, and almost 25 million Americans who use the Colorado River water downstream.

Sincerely,

  
Dianne Feinstein  
United States Senator

003

03/21/2005 14:31 FAX

Document #1398 Smith, Darrell H. Salt Lake County Council of Governments

01/14/2005 10:31 0013334097

DIV RAD CONTROL

PAGE 02

#1398

Loren M.

## Salt Lake County Council of Governments

March 11, 2005

Executive Secretary

Governor Jon M. Huntsman, Jr.  
State of Utah  
210 State Capitol  
Salt Lake City, Utah 84114-2220

Edwin E. Blaney  
295 North Jimmy Doolittle Road  
Salt Lake City, Utah 84116  
Phone: (801) 363-4250  
Fax: (801) 363-4230  
Email: eblaney@wfrc.org

Dear Governor Huntsman:



At our Council of Governments meeting held March 3, 2005, COG members briefly discussed the studies currently underway to identify the best alternative for managing the 12 million tons of radioactive waste located next to the Colorado River near Moab. They were reminded of a site visit to the Moab area several of them participated in on October 2, 1998. The purpose of the visit was to receive a briefing on management problems involving the National Parks and other recreational facilities located nearby. The invitation for the visit was extended by Mr. Walt Dabney, Superintendent at that time for the Southeast Utah National Parks and Monuments group. Mr. Dabney realized that a large percentage of his visitors were residents of the Wasatch Front. He wanted the local elected officials from the Salt Lake County area who represented many of the urban visitors to understand the concerns he was dealing with.

One of the concerns identified by parks management was the Atlas Mineral Corporation tailing pile, sitting like a time bomb near the banks of the Colorado River. Our delegation stood on the road next to the tailings pile and observed where a portion of the tailings had already drained toward the River. Noting the devastated vegetation in the drain fields, COG members unanimously agreed that this toxic material should be moved. Given the fragility of the desert lands that make up so much of Utah, we agree with the notion that it is not a question of if the tailings will be washed into the Colorado River, but when. We support the removal of the tailings to a more appropriate site.

While moving the tailings will cost more in the short run, it does represent the most permanent and environmentally sound management alternative. The Colorado River plays such a vital role in the West as to render any alternative plan for onsite storage unacceptable. We cannot leave the lower Colorado River system at risk.

We appreciate your strong support of the removal option. We may have missed the deadlines for formal comment on the draft Environmental Impact Statement. We would appreciate it, therefore, if you would forward our views to the United States Department of Energy officials responsible for developing the Atlas Tailing management plan in any of your subsequent communications.

Sincerely,

*Darrell H. Smith*

Mayor Darrell H. Smith  
President

CC: Mr. Don Metzler  
Mayor William H. Levitt  
Mr. Sam Taylor  
Dr. Dianne Nielsen



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AN ASSOCIATION OF LOCAL GOVERNMENTS IN SALT LAKE COUNTY, UTAH  
Alta - Bluffdale - Cottonwood Heights - Draper - Herriman - Holladay - Midvale - Murray - Riverton - Salt Lake City  
Salt Lake County - Sandy - South Jordan - South Salt Lake City - Taylorsville - West Jordan - West Valley City

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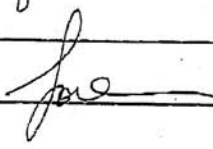
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To=US DEPARTMENT OF ENE Page 02

Remediation of the Moab Uranium Mill Tailings, Grand and San Juan Counties, Utah  
Final Environmental Impact Statement

DIVISION OF RADIATION CONTROL

PAGE 01

FAX		
DATE: 4/05/05	TIME: A.M. P.M.	PAGES: 1 + cover
TO: Don Metzler	FROM: Loren Morton Faxed By:	
CO./DEPT. DOE-GJO		
PHONE #		
FAX #: 970-248-6023		
	 State of Utah Department of Environmental Quality Dianne R. Nielson, Ph.D. Executive Director DIVISION OF RADIATION CONTROL Dane L. Finertrock Director	
	JON M. HUNTSMAN, JR. Governor GARY HERBERT Lieutenant Governor Department of Environmental Quality Division of Radiation Control 168 North 1950 West Salt Lake City, Utah 84116 (801)536-4250 Main Office/Voice Mail (801)533-4097 FAX (801)536-4414 TDD <a href="http://www.deq.utah.gov">http://www.deq.utah.gov</a> <a href="http://www.radiationcontrol.utah.gov">http://www.radiationcontrol.utah.gov</a>	
SUBJ: 3/11/05 letter from Salt Lake County Council of Government		
COMMENTS		
Dan,		
I am forwarding the attached letter to you, in response to a recent request of Governor Huntsman.		
Call me if you have questions.		
		

Received Apr-04-05 04:56pm

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To-US DEPARTMENT OF ENE Page 01

*Remediation of the Moab Uranium Mill Tailings, Grand and San Juan Counties, Utah  
Final Environmental Impact Statement*

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State of Utah

JON M. HUNTSMAN, JR.  
*Governor*

GARY R. HERBERT  
*Lieutenant Governor*

Office of the Governor

JASON CHAFFETZ  
*Chief of Staff*

APR 6 2005

March 28, 2005

Mayor Darrell H. Smith  
Salt Lake County Council of Governments  
c/o Edwin E. Blaney  
295 North Jimmy Doolittle Road  
Salt Lake City, Utah 84116

Dear Mayor Smith:

Governor Huntsman received your letter regarding the removal of the Moab Uranium Mill Tailings and asked that I respond on his behalf.

We are grateful for your support and the support of additional local authorities with regard to the removal of the mill tailings near Moab, Utah. Governor Huntsman agrees with you in the fact that removing the tailings from the banks of the Colorado River must take place as quickly, and as safely as possible. I have taken the liberty of enclosing a copy of Governor Huntsman's letter regarding this matter to the United States Department of Energy.

Once again, thank you for your interest in very important environmental issue and for your support of the Governor's efforts to preserve and protect the State of Utah.

Sincerely,

A handwritten signature in black ink, appearing to be "JC", written over a large, stylized "C" that loops around the signature.

Jason Chaffetz  
Chief of Staff

cc: Dr. Dianne Nielson, DEQ  
Mr. Don Metzler  
Mayor William H. Levitt  
Mr. Sam Taylor

Enclosure (1)

East Office Building, Suite E220, Salt Lake City, Utah 84114 • telephone 801-538-1000

**Utah!**  
*Where ideas connect*



STATE OF UTAH

OFFICE OF THE GOVERNOR  
SALT LAKE CITY, UTAH  
84114-2220

JON M. HUNTSMAN, JR.  
GOVERNOR

GARY R. HERBERT  
LIEUTENANT GOVERNOR

February 15, 2005

Mr. Don Metzler  
Moab Federal Project Office  
U.S. Department of Energy  
2597 B ¼ Road  
Grand Junction, Colorado 81503

Dear Mr. Metzler,

RE: Moab Uranium Mill Tailings, Draft Environmental Impact Statement,  
DOE/EIS-0355D, State of Utah Comments

Thank you for the opportunity to provide comments on a significant project for the State of Utah, remediation of the Moab Uranium Millsite and Tailings Pile. I urge the U.S. Department of Energy (DOE) to remove the Moab Mill Tailings Pile from the banks of the Colorado River, transport the tailings to a repository to be constructed at Klondike Flats, clean up the remainder of the Millsite, and treat groundwater contamination at the site for the period necessary to ensure that contamination does not migrate offsite through groundwater or into the Colorado River in violation of Utah surface and groundwater quality standards. This work should be commenced immediately, and federal funding should be sought to complete the work as promptly as possible. Now is the time to act – to move the Tailings Pile.

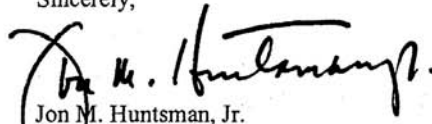
The State of Utah appreciates DOE's work in preparation of the Draft Environmental Impact Statement (DEIS), as well as the ongoing work to minimize contamination from moving off the Millsite. However, it is clear that the Tailings Pile cannot be left in the floodplain of the Colorado River. Recent studies by the U.S. Geological Survey and the University of Utah, as well as the reviews by the Utah Department of Environmental Quality, document that the river has migrated historically within the floodplain and over geologic time and that the force of the river at both a maximum flood event and even a 100-year event will generate forces sufficient to erode the adjacent banks of the river and undercut the tailings pile. The National Academy of Sciences Committee also recognized the critical importance of that risk when it reviewed remediation plans for the site. Recent flooding in the St. George and Santa Clara regions

of Utah also demonstrated the swift and immense force of moving water in the desert. We cannot afford to assume the risks associated with having uranium tailings strewn along river banks and bars of the Colorado River below Moab. Good science and good sense tell us the tailings must be moved.

Furthermore, moving the uranium tailings to a constructed repository at Klondike Flats creates the smallest impact and the most reasonable expenditure of funds to solve the problem. The repository site at Klondike Flats has broad support from federal, state, and local agencies, and from local residents. Transportation along the existing rail line reduces transportation impacts. Removing the tailings from the banks of the Colorado River would eliminate the risk of river undercutting, remove the source of groundwater contamination, and reduce the time needed for treatment of contamination at the river's edge.

Additional, detailed comments on the DEIS will be submitted by the Utah Department of Environmental Quality on behalf of the State. We look forward to working with you to initiate the removal of the last of the uranium mill tailings piles on the banks of the Colorado River. Thank you for your consideration of this essential work.

Sincerely,



Jon M. Huntsman, Jr.  
Governor

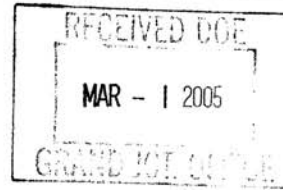
**Document #1400 Zimmerman, Gerald R. Colorado River Board of California**

STATE OF CALIFORNIA - THE RESOURCES AGENCY

ARNOLD SCHWARZENEGGER, Governor

**COLORADO RIVER BOARD OF CALIFORNIA**

770 FAIRMONT AVENUE, SUITE 100  
GLENDALE, CA 91203-1035  
(818) 543-4676  
(818) 543-4685 FAX



#1400, pl

February 18, 2005

Mr. Donald R. Metzler  
Moab Federal Project Director  
U.S. Department of Energy  
2597 B ¾ Road  
Grand Junction, CO 81503-1789

**Subject: Remediation of Moab Uranium Mill Tailings, Grand and San Juan Counties, Utah, Draft Environmental Impact Statement (DOE/EIS-0355D)**

Dear Mr. Metzler:

The Colorado River Board of California (CRB) has received and reviewed a copy of report entitled "Remediation of the Moab Uranium Mill Tailings, Grand and San Juan Counties, Utah, Draft Environmental Impact Statement, November 2004, (DOE/EIS-0355D)" (DEIS). The DEIS was issued by the Office of Environmental Management, U.S. Department of Energy (DOE).

The purpose of the DEIS is to provide information on the environmental impacts of DOE's proposal to 1) remediate approximately 11.9 million tons of contaminated materials located on the Moab Uranium Mill Tailings site and approximately 39,700 tons located on nearby properties; and 2) develop and implement a groundwater compliance strategy for the Moab site. In the DEIS the surface remediation alternatives include on-site disposal of the contaminated materials and off-site disposal at one of three alternative locations in Utah. The DEIS also analyzed a no action alternative, under which DOE would not implement any surface or ground water remedial actions. So far, DOE has not yet identified a preferred alternative. A preferred alternative will be identified in the final EIS after consideration of public comments on this DEIS and other factors, including the costs associated with alternative actions.

I would like to thank you for the opportunity to comment on the DEIS and have comments as follows:

**Moving the Moab Tailings Pile Off-Site**

The CRB in its letter of June 22, 1999, to the Nuclear Regulatory Commission concluded that on-site capping of the mill tailings raised serious concerns due to the site's location adjacent to the Colorado River, and that the prudent and environmentally sound method of dealing with this problem would be to remove the tailings to another site. The CRB continues to hold that position. Please refer to the enclosed letter.

Also, one of the CRB's member agencies, The Metropolitan Water District of Southern California (MWD), in its letter dated February 17<sup>th</sup> to your agency, strongly believes that moving the Moab pile off-site is the only reliable and permanent alternative sufficient to protect the Colorado River from further contamination by radioactivity, organics, and inorganics; i.e. radium-226, ammonia and the



#1400, p2

Mr. Donald R. Metzler  
February 18, 2005  
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total dissolved solid (TDS), etc.

Additionally, the CRB concurs with the State of Utah's December 29, 2004, and February 15, 2005, letters to the DOE, which state that any remediation other than an off-site option is unacceptable (copies enclosed). With both the no action and the on-site alternatives, contaminated seepage will continue to leak from the tailings pile and into the Colorado River. Also, as pointed out by MWD there are potential adverse impacts to the Colorado River from both the no action alternative and the on-site alternative through natural subsidence, river migration, flooding, incision, and disposal cell or tailings pile failure.

The CRB strongly supports the off-site disposal option, as this is the prudent option, which offers long-term, permanent protection to the quality of water received by downstream Colorado River users. With both the no action and the on-site alternatives, contaminated seepage will continue to leak from the tailings pile and into the Colorado River, which is not acceptable.

#### **Groundwater Remediation**

DOE has not identified a preferred option yet; however, Groundwater Extraction and Disposal are main components of the Groundwater Remediation proposal, which are addressed below.

#### **Groundwater Extraction**

In Section 2.3.2.1, two methods for extracting contaminated groundwater, i.e., "extraction wells" and "interception trenches" are mentioned. For the extraction wells method, 50 to 150 wells to depths of up to 50 feet would be installed. For the shallow trenches option, up to 2,000 lineal feet of trenches would be constructed to intercept shallow groundwater (the depth of the shallow trenches is not mentioned in the DEIS). It is indicated in the report that with both methods approximately 150 gallons per minute (gpm) of contaminated water would be extracted.

The CRB's concern is that it is not conclusive whether any of these methods would capture all of the contaminated groundwater, that otherwise would reach the Colorado River. In Section 3.1.6.1 of the DEIS, it is mentioned that "site-related groundwater contamination occurs in the unconsolidated basin-fill aquifer in the upper hydrologic system." Also, in Section 3.1.6.2, it is reported that the "average saturated thickness of the gravelly sand that constitutes the unconsolidated basin-fill aquifer is approximately 70 feet." It is not clear whether a number of 50-foot deep wells or the trenches would capture the water in the 70-foot deep saturated aquifer and whether the 150 gpm extracted from these extraction wells or trenches is equal to or greater than the amount of groundwater flow to the Colorado River.

The CRB suggests that the following questions be addressed in the final EIS:

- The mechanism that would guarantee that the 50-foot deep wells would capture all of the contaminated groundwater.

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Mr. Donald R. Metzler  
February 18, 2005  
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- The same question is asked regarding the trenches option in light of the fact that the depth of the trenches is not indicated in the DEIS.
- Indicate the amount of contaminated groundwater that reaches the Colorado River. This should be compared with the amount of water that would be extracted.

#### **Groundwater Disposal**

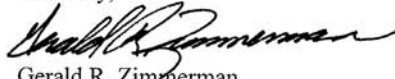
In Section 2.3.2.1 of the DEIS, three methods of disposal of the extracted and treated groundwater are offered. These disposal options are: "discharge to surface water", "shallow injection" and "deep well injection." Although the "deep well injection" may provide more of a safety factor; there may be some restrictions and obstacles that would prohibit implementing this option, such as the rate that water can be continuously injected into the deep aquifer. Have those been identified and evaluated?

#### Colorado River Basin Salinity Control Forum Policies

The alternative selected should at least meet all Colorado River Basin Salinity Control Forum (Forum) policies. The *"Policy for Implementation of Colorado River Salinity Standards Through the NPDES Permit Program for Intercepted Groundwater"* states that the discharge of intercepted groundwater into the Colorado River needs to be evaluated in a manner consistent with the overall objective of "no-salt" return whenever practical. The no-salt discharge requirement may be waived at the option of the permitting authority in those cases in which the discharge salt load reaching the main stem of the Colorado River is less than one ton per day or 350 tons per year, whichever is less. The water currently migrating from the bottom of the tailings pile has a composition of approximately 24,600 mg/L TDS and a flow rate of 20 gallons per minute. This data indicates that the TDS loading to the Colorado River under the no action alternative is 2.9 tons/day and the TDS loading to the Colorado River will remain above the threshold of one ton per day for the next 20 years under the no action alternative. If water is extracted and returned to the Colorado River, the Colorado River Basin Salinity Control Forum's *"Policy for Implementation of Colorado River Salinity Standards Through the NPDES Permit Program"* should be met.

Please feel free to contact me at (818) 543-4676, if you have any questions, or require additional information. Additionally, please ensure that the CRB continues to receive copy of supplemental information or update regarding this process.

Sincerely,



Gerald R. Zimmerman  
Executive Director and  
Member, Colorado River Basin Salinity Control Forum

Enclosures

*Remediation of the Moab Uranium Mill Tailings, Grand and San Juan Counties, Utah  
Final Environmental Impact Statement*

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STATE OF CALIFORNIA - THE RESOURCES AGENCY

GRAY DAVIS, Governor

**COLORADO RIVER BOARD OF CALIFORNIA**

770 FAIRMONT AVENUE, SUITE 100  
GLENDALE, CA 91203-1035  
(818) 543-4676  
(818) 543-4685 FAX

#1400, p 2



June 22, 1999

Ms. Shirley Ann Jackson  
Chairman  
Nuclear Regulatory Commission  
One White Flint North Building  
11555 Rockville Pike  
Rockville, MD 20852

Dear Chairman Jackson:

I want to take the opportunity to thank the Nuclear Regulatory Commission (NRC) for the action it took in responding to the Colorado River Board's letter of February 9, 1999, concerning the Atlas Corporation's uranium mine tailings near Moah, Utah. Mr. John Holonick, from your Rockville, Maryland office attended the Board's May 5<sup>th</sup> meeting in South Lake Tahoe, Nevada and did an excellent job in presenting the NRC's position regarding the mine tailings.

The issue of the mine tailings, however, was again discussed in some detail at the Board's June meeting and the Board concluded that it was unacceptable that contaminants from the pile are continuing to pollute the Colorado River and even after reclamation, as proposed by the Atlas Corporation, would continue but at a reduced rate. During the discussion, the Board voted to request the NRC, or the appropriate federal agencies, to remove the tailings to a remote location. The Board concluded that on-site capping of the mill tailings raised serious concerns due to the site's location adjacent to the Colorado River, and that the prudent and environmentally sound method of dealing with this problem would be to remove the tailings to another site.

The Colorado River Board understands the regulatory limitations of the NRC and, therefore, has supported H.R. 393, introduced by Rep. George Miller of California, that would require the Secretary of Energy to remove the tailings from the site and provide for groundwater remediation and additional water quality monitoring.

If you have any questions, give me a call at (818) 543-4676.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Gerald R. Zimmerman'.

Gerald R. Zimmerman  
Executive Director

